

marked thereon at an equal pitch between each mark, and a photoelectric device for converting an image sighted by said telescope into an electric signal with a set range to thereby automatically adjust a focus on the leveling rod, said mechanism comprising:

driving means for moving a focusing lens of said telescope from one end toward an opposite end of a movable range of said focusing lens;

pitch computing means for obtaining the pitch of the pattern marks of only a portion of the leveling rod at that position on said photoelectric device which is capable of obtaining the pitch in a state before said focusing lens is focused on the leveling rod to thereby obtain a distance to the leveling rod based on the pitch obtained by said pitch computing means, without scanning an entire targeted area for focusing; and

fine adjusting means for moving said focusing lens to a position corresponding to the distance.

3. (Twice Amended) An automatic focusing mechanism for mounting on a measuring device having a telescope for sighting a leveling rod with pattern marks marked thereon at an equal pitch between each mark, and a photoelectric device for converting an image sighted by said telescope into an electric signal with a set range to thereby automatically adjust a focus on the leveling rod, said mechanism comprising:

driving means for moving a focusing lens of said telescope to a predetermined position within a movable range of said focusing lens;

pitch computing means for obtaining the pitch of the pattern marks of only a portion of the leveling rod on said photoelectric device to obtain a distance to the